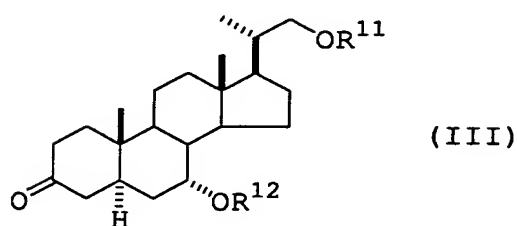
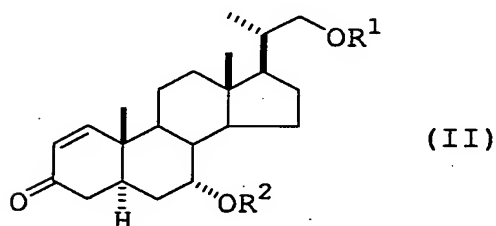


# Claims

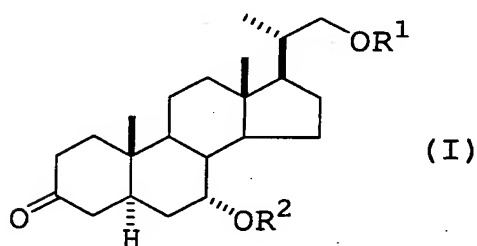
1. A method for producing a  $5\alpha$ -pregnane derivative represented by the formula (III):



5 wherein  $R^{11}$  and  $R^{12}$  are each independently a hydrogen atom or a hydroxyl-protecting group, which comprises selectively reducing a carbon-carbon double bond of a  $5\alpha$ -pregnane derivative represented by the formula (II):



10 wherein  $R^1$  and  $R^2$  are each independently a hydrogen atom or a hydroxyl-protecting group, in a mixture of a  $5\alpha$ -pregnane derivative represented by the formula (I):



15 wherein  $R^1$  and  $R^2$  are as defined above, and the  $5\alpha$ -pregnane derivative represented by the above formula (II).

2. The method of claim 1, wherein  $R^2$  and  $R^{12}$  are hydrogen atoms.

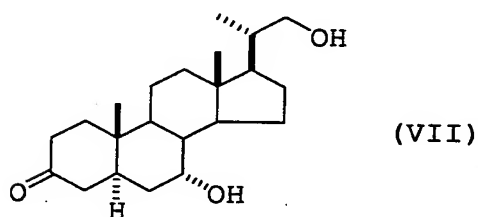
3. The method of claim 2, wherein  $R^1$  and  $R^{11}$  are tri-substituted  
20 silyl groups having three, same or different, substituents selected from the group consisting of an alkyl group optionally having substituent(s), an aryl group optionally

having substituent(s), an alkoxyl group optionally having substituent(s) and an aryloxy group optionally having substituent(s).

5 4. The method of claim 3, wherein  $R^1$  and  $R^{11}$  are tert-butyldimethylsilyl groups.

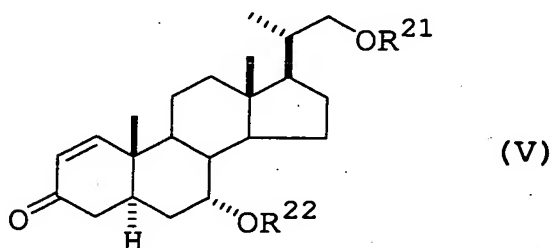
5. The method of claim 2, wherein  $R^1$  and  $R^{11}$  are hydrogen atoms.

10 6. A method for producing (20S)-7 $\alpha$ ,21-dihydroxy-20-methyl-5 $\alpha$ -pregn-3-one represented by the formula (VII):

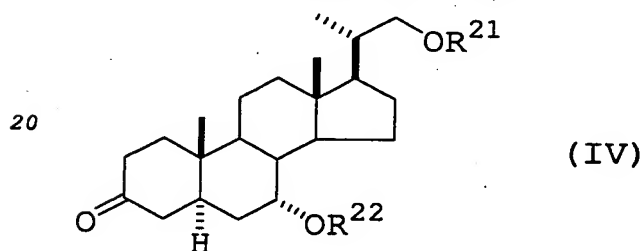


, which comprises

(a) selectively reducing a carbon-carbon double bond of a 5 $\alpha$ -pregnane derivative represented by the formula (V):

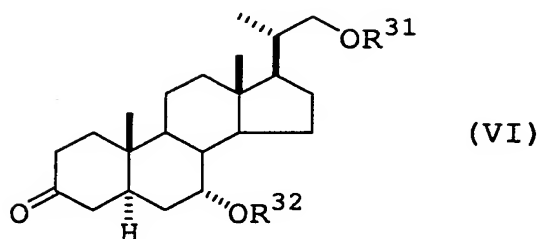


wherein  $R^{21}$  is a hydroxyl-protecting group and  $R^{22}$  is a hydrogen atom or a hydroxyl-protecting group, in a mixture of a 5 $\alpha$ -pregnane derivative represented by the formula (IV):



wherein  $R^{21}$  and  $R^{22}$  are as defined above, and the 5 $\alpha$ -pregnane derivative represented by the above formula (V) to give a 5 $\alpha$ -

pregnane derivative represented by the formula (VI):



wherein R<sup>31</sup> is a hydroxyl-protecting group and R<sup>32</sup> is a hydrogen  
5 atom or a hydroxyl-protecting group; and

(b) eliminating the hydroxyl-protecting groups of the 5 $\alpha$ -  
pregnane derivative represented by the above formula (VI)  
obtained by the aforementioned step.

10 7. The method of claim 6, wherein R<sup>22</sup> and R<sup>32</sup> are hydrogen  
atoms.

8. The method of claim 7, wherein R<sup>21</sup> and R<sup>31</sup> are tri-  
substituted silyl groups having three, same or different,  
15 substituents selected from the group consisting of an alkyl  
group optionally having substituent(s), an aryl group  
optionally having substituent(s), an alkoxyl group optionally  
having substituent(s) and an aryloxy group optionally having  
substituent(s).

20

9. The method of claim 8, wherein R<sup>21</sup> and R<sup>31</sup> are tert-  
butyldimethylsilyl groups.